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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,750	03/05/2002	Louis B. Rosenberg	IMMR-014/02US	8227

22903 7590 09/11/2003

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EXAMINER

LANEAU, RONALD

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,750

Applicant(s)

ROSENBERG, LOUIS B.

Examiner

Ronald Laneau

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 47 is objected to because of the following informalities:

There is a typo in claim 47, line 1. The word "configured" should be written "configured."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38, 39, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable by Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219).

As per claims 38 and 39, Massie et al teach a stylus 802 configured to be manipulated against a surface and configured to be held in a hand of a user (fig. 8); an actuator 812 connected to the end 808 of the end quarter gimbal 804 to which a stylus 802 is attached freely rotatably (col. 27, lines 58-60, fig. 8). Massie et al do not teach a sensor configured to send sensor signals to a host computer but Chen et al is used to show that the concept of having sensor to send signals to a processor is known as Chen et al teach a sensor processing that is configured to send sensor signals to a local processor (fig. 1B).

Art Unit: 2674

It would have been obvious to one of ordinary skill in the art to utilize the sensor taught by Chen et al into the device of Massie et al because it would provide information about tangential motion between the stylus and the user's hand.

As per claim 48, Massie et al teach an apparatus that may vary along its length based on the force applied by the user (col. 5, lines 60-62).

4. Claims 40, 41, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219) and further in view of Berkson et al (US 5,627,348).

As per claims 40 and 41, the same rejection to claim 38 applies. Neither Massie et al nor Chen et al teach an apparatus comprises a power source disposed within the stylus and wherein the power source includes a battery but Berkson et al teach a stylus with a power source and wherein the power source is a battery 72 as claimed (col. 13, lines 38-43, fig. 12)

It would have been obvious to one of ordinary skill in the art to utilize the stylus including a power source which is a battery as taught by Berkson et al into the combined device of Massie et al and Chen et al because it would optimize the performance of the device by taking advantage of additional power in the stylus itself.

As per claims 44 and 45, Massie et al do not teach a stylus with a rotatable ball but Berkson et al teach a writing system or stylus wherein the tip comprising a ball rotating in the housing for rolling across the writing surface (figs 1-3). The actuator taught by Massie et al can apply the resistance against the stylus with a writing ball.

Art Unit: 2674

It would have been obvious to one of ordinary skill in the art to utilize the stylus with a writing ball as taught by Berkson et al into the combined device of Massie et al and Chen et al because it would achieve the tactile effect of writing with a conventional pen on a paper pad (col. 2, lines 64-65).

5. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219) and further in view of Van Namen (US 5,896,076).

As per claims 42 and 43, the same rejection to claim 38 applies. Massie et al do not teach an actuator producing a plurality of force sensations including a vibration, a voice coil but Van Namen is used to show that the concept of an actuator including vibration and a voice coil is well known (col. 2, lines 34-36).

It would have been obvious to one of ordinary skill in the art to utilize the actuator of solenoid type as taught by Van Namen into the combined device of Massie et al and Chen et al because it would improve the flux distribution in the air gap and also improve permeability under vibrations.

6. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219) and further in view of Berkson et al (US 5,627,348) and further further in view of Van Namen (US 5,896,076).

As per claim 46, the same rejection to claims 38 and 44 applies. Neither Massie et al nor Chen et al nor Berkson et al teach an actuator which is a solenoid but Van Namen teaches an actuator which of solenoid type (col.3, lines 29-31).

It would have been obvious to one of ordinary skill in the art to utilize the actuator of solenoid type as taught by Van Namen into the combined device of Massie et al, Chen et al, and Berkson because it would increase the output force as a function of frequency and therefore providing good efficiency.

7. Claims 47, 49-53, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable by Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219) and further in view of Gray et al (US 5,571,997).

As per claims 47, 49, and 55, see rejection of claim 38. Massie et al and Chen et al do not teach an actuator that is configured to vibrate at a high frequency but Gray et al teach a stylus wherein a force is converted into a corresponding modulation in the output frequency (col. 7, lines 40-48).

It would have been obvious to one of ordinary skill in the art to utilize the force modulation with high frequency as taught by Gray et al into the combined device of Massie et al and Chen et al because it would provide a pressure sensitive pen system utilizing an analog shift in radiated frequency proportional to the pressure being exerted by the pen on a tablet surface (col. 2, lines 20-24).

As per claim 56, Gray et al teach a stylus configured to be held in a hand and over against a surface (col. 2, lines 20-24).

Art Unit: 2674

As per claims 50, 51, 53, and 57, Gray et al teach a stylus configured to be held in a hand and over against a surface (col. 2, lines 20-24) and wherein a force is converted into a corresponding modulation in the output frequency (col. 7, lines 40-48). And the examiner takes the Official notice that a stylus with a rotatable ball is well known in the art.

As per claim 52, Gray et al teach a stylus configured to be held in a hand and over against a surface (col. 2, lines 20-24).

8. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable by Massie et al (US 5,898,599) in view of Chen et al (US 5,709,219) and further in view of Gray et al (US 5,571,997) and further further in view of Van Namen (US 5,896,076).

As per claim 54, the same rejection to claims 49-52 applies. Neither Massie et al nor Chen et al nor Gray et al teach an actuator which is a solenoid but Van Namen teaches an actuator which of solenoid type (col.3, lines 29-31).

It would have been obvious to one of ordinary skill in the art to utilize the actuator of solenoid type as taught by Van Namen into the combined device of Massie et al, Chen et al, and Gray et al because it would increase the output force as a function of frequency and therefore providing good efficiency.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Chen et al (US 5,742,278), Fish (US 6,337,678),
- Martin et al (5,828,197), Rosenberg (US 6,353,427).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Laneau whose telephone number is 703-305-3973. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:00 PM or via email: ronald.laneau@uspto.gov.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached at 703-305-4709.

11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

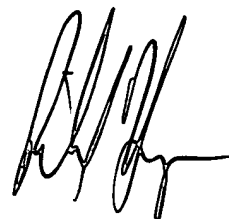
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ronald Laneau
Examiner
Art Unit 2674

rl
August 28, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600